DUAL MASTER OF SCIENCE
IN THE FIELD OF DATA
SCIENCE AND CERTIFICATE IN
GEOGRAPHIC INFORMATION
SYSTEMS

Master’s in Data Science with Graduate Certificate in GIS
Curriculum Map
For the Data Science Master’s degree, the
requirements are:

REQUIRED COURSES
Core (4 COURSES):

- DATS 6101 Introduction to Data Science
- DATS 6102 Data Warehousing
- DATS 6103 Introduction to Data Mining
- DATS 6501 Data Science Capstone

Advanced (4 COURSES):

- DATS 6202 Machine Learning I: Algorithm Analysis
- DATS 6203 Machine Learning II: Data Analysis
- DATS 6401 Visualization of Complex Data
- DATS 6402 High Performance Computing and Parallel Computing

APPLICATION AREA ELECTIVE COURSES (2 COURSES):

- DATS 6201 Numerical Linear Algebra and Optimization
- DATS 6499 Data Science Applied Research
- DATS 6450 Topics in Data Science
- GEOG 6304 Geographical Information Systems I
- STAT 6210 Data Analysis
- STAT 6214 Applied Linear Models
- STAT 6242 Modern Regression Analysis

The Geographical Information Systems Graduate Certificate requires completing 4 courses, 2 of which (6 credits) can be used to meet elective requirements for the Data Science M.S. A student pursuing both the degree in data science and certificate in GIS would be able to complete both programs by completing 36 credits.